In re the Application of Rule 53(b) Divisional: MORIIZUMI, Kiyokazu et al.

U.S Serial No. 09/705,897 (Parent)

Preliminary Amendment

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 - 10 (Canceled)

Claim 11 (Original): A method for fabricating a mounted circuit substrate, wherein

after a component mounting pad including at least a columnar pattern made of a metal highly

resistant to erosion by solder is formed on a thin-film multilayer substrate having at least one

conductive layer, an organic insulating layer is formed in such a manner as to cover said

component mounting pad, and then said organic insulating layer is removed over entire surface

thereof so as to provide a planarized surface until a top of said columnar pattern is exposed.

Claim 12 (Original): The method for fabricating the mounted circuit substrate as

claimed in claim 11, wherein after forming said columnar pattern, the portion forming said

component mounting pad and lying below said columnar pattern is etched so as to have a larger

diameter than a diameter of said columnar pattern, thereby forming said component mounting

pad.

Claim 13 (Original): The method for fabricating the mounted circuit substrate as

claimed in claim 11, wherein the step of removing said organic insulating layer over the entire

surface thereof is performed using a method called Chemical Mechanical Polishing method.

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Claim 14 (Original): The method for fabricating the mounted circuit substrate as

claimed in claim 11, wherein an Au layer is formed by electroless plating on the exposed top

surface of said columnar pattern.

Claim 15 (Original): The method for fabricating the mounted circuit substrate as

claimed in claim 11, wherein an Au layer is formed by sputtering on the exposed top surface of

said columnar pattern.

Claim 16 (Original): The method for fabricating the mounted circuit substrate as

claimed in claim 11, wherein after a plated layer made of the metal highly resistant to erosion

by solder is formed by electroless plating, an Au layer is formed either by electroless plating or

by sputtering on the exposed top surface of said columnar pattern.

Claim 17 (Original): The method for fabricating the mounted circuit substrate as

claimed in claim 11, wherein the metal highly resistant to erosion by solder is Ni or Pt.

Claim 18 (Original): The method for fabricating the mounted circuit substrate as

claimed in claim 12, wherein the portion forming said component mounting pad and lying

below said columnar pattern includes at least a Cu base layer.

Claim 19 (Original): The method for fabricating the mounted circuit substrate as

claimed in claim 12, wherein said organic insulating layer is formed from a polyimide resin.

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Claim 20 (Original): The method for fabricating the mounted circuit substrate as claimed in claim 12, wherein prior to the formation of said organic insulating layer, at least a coupling agent is applied to the side faces of said columnar pattern.